Claims

1. A balloon catheter comprising:

an elongated catheter shaft having proximal and distal end portions,

an expandable balloon located at the distal end portion of the catheter shaft, the balloon having a distal end and a proximal end; and

a pouch disposed over at least a portion of said expandable balloon,

wherein an area between said pouch and said portion of said expandable balloon is adaptive to receiving an agent when the balloon is not expanded, and

wherein said agent is releasable through said pouch when said balloon is expanded.

2. The balloon catheter of claim 1 wherein said expandable balloon has an annular ridge at both the distal end and proximal end of the balloon, and the pouch is located between the annular ridges.

3. The balloon catheter of claim 1 wherein said pouch is made of epolytetrafluoroethylene (ePTFE) material.

4. The balloon catheter of claim 1 wherein said pouch has a higher burst strength than said expandable balloon.

5. The balloon catheter of claim 2 wherein said distal and proximal ends of said expandable balloon have a cone shape which slopes downward from said annular ridges to the distal and proximal ends of the balloon.

6. The balloon catheter of claim 2 wherein said pouch is located on a working length of said expandable balloon which is located between said annular ridges and has a diameter less than the diameter of the annular ridges.

7. The balloon catheter of claim 1 wherein said balloon catheter is a percutaneous transluminal coronary angioplasty catheter.

8. The balloon catheter of claim 1 wherein said balloon catheter is a percutaneous transluminal angioplasty catheter.

9. The balloon catheter of claim 1 further comprising an agent disposed between the pouch and the expandable balloon when the balloon is not expanded, wherein said agent is releasable through said pouch when said balloon is expanded.

10. A method for delivery of a drug to a selected site within a vascular system of a patient comprising:

providing a catheter in accordance with claim 1;

loading and holding an agent in the area between said pouch and said balloon when the balloon is not expanded;

locating said balloon at said selected site within the vascular system; and

expanding said balloon,

wherein said agent is released through said pouch to said selected site within the vascular system when said balloon is expanded.

11. The method of claim 10 wherein agent is delivered during percutaneous transluminal coronary angioplasty.

12. The method of claim 10 wherein agent is delivered during percutaneous transluminal angioplasty.